

Snake River Salmon Recovery Region Plan¹



SALMON RECOVERY FUNDING BOARD

GOAL

Develop and maintain a healthy ecosystem that contributes to the rebuilding of key fish populations by providing abundant, productive, and diverse populations of aquatic species that support the social, cultural, and economic well-being of the communities both within and outside the recovery region.

// Recovery plans are a vital part of the effort to combat the decline of salmon... **//**

**SNAKE RIVER
SALMON RECOVERY
BOARD**



Plan Timeframe
15 years



Estimated Cost
\$115 million



**Actions Identified
to Implement Plan**
264



Status
Habitat portion
of plan submitted to
NMFS/USFWS
10/2005

Human Population 213,508	Counties Walla Walla, Columbia, Garfield, Asotin, and portions of Whitman	Treaty Tribes Nez Perce and Confederated Tribes of the Umatilla Reservation	Listed Fish Sockeye ² , steelhead, Chinook ³ , and bull trout ⁴	Regional Recovery Organization Snake River Salmon Recovery Board
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MAJOR FACTORS LIMITING RECOVERY

- ▮ Hydropower system mortality on Columbia River
- ▮ Reduced summer stream flows
- ▮ Over harvest of fish
- ▮ Excessive sediment
- ▮ Elevated water temperatures
- ▮ Altered channel morphology
- ▮ Degraded riparian habitat
- ▮ Fish passage blockages

KEY ACTIONS RECOMMENDED TO RECOVER FISH

January 2006 to June 2007

- ▮ Reduce sediment
- ▮ Improve and protect riparian areas
- ▮ Improve fish passage
- ▮ Properly screen diversions
- ▮ Increase stream habitat complexity

Long Term

- ▮ Restore and maintain suitable stream flows
- ▮ Improve uplands
- ▮ Improve channel and floodplain conditions
- ▮ Improve riparian functions
- ▮ Monitor effectiveness of actions



¹ All H recovery plan integration is underway, including focus on out-of-sub-basin impacts. This process, involving the NMFS, Regional Board, WDFW, and GSRO is expected to be complete no later than June 2006. Roll up of entire ESU (Oregon and Idaho portions) underway.

² Sockeye do not reside in the region and are not addressed in the plan

³ The ICTRT has not yet developed criteria for Snake River fall Chinook, so they are not yet addressed in the plan.

⁴ USFWS previously published a bull trout recovery plan (2002). The status of bull trout is currently under review and is expected to be complete by early 2006. At that time, USFWS will work with the Regional Board, WDFW, GSRO to incorporate elements of the State's strategy and the Board's plan into the federal plan.

Snake River Salmon Recovery Region Mid-Columbia Steelhead



Snake River Region Mid-Columbia Steelhead Evolutionarily Significant Unit (ESU) and Context Area

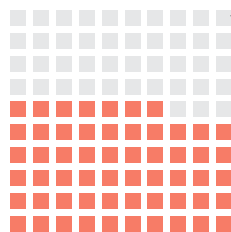
-  ESU in Washington
-  Major Population Group (MPG)
-  In ESU, Not in Plan
-  ESU in Oregon

Steelhead Spawner Abundance

Population	Present	Goal ¹
Touchet	310	701
Walla Walla	905	1,432
Total	1,215	2,133

**Total Spawner
Abundance Goal**
2,133 (100%)

This is the number of adults needed on the spawning grounds to achieve recovery. Wherever possible it is expressed in natural spawner numbers.



**Total Spawner
Abundance Present**
1,215 (57% of Goal)

1 BOX = 1%

¹ Goal established by recovery organization as habitat contribution to recovery. These goals are interim (15 years) and long range goals may exceed them.

Steelhead Productivity

Population	Present	Goal
Touchet	1.2	1.30
Walla Walla	1.4	1.45

Productivity: Population growth rate. This is how many fish return for each fish that spawns. A population must have productivity greater than 1 to increase over time.



Whiskey Creek Dam Removal

CHRIS JOHNSON



STEELHEAD
Oncorhynchus mykiss

Live 4-7+ years; typically spend 1-3 years in ocean before returning in late summer/early fall to spawn; in the Snake River system, steelhead are found in the Walla Walla and Touchet River systems, including Patit Creek + tributaries, Dry and Pine-Dry Creeks.

MID-COLUMBIA Steelhead Snake River Salmon Recovery Region

Walla Walla MPG Key Actions

- Irrigation efficiency projects on 2,600 acres
- Lease/purchase 27 CFS annually
- 750 AF storage in Walla Walla
- 60,000 acres upland BMPs
- 3 miles bank stabilization in priority riparian areas
- 29 miles instream habitat modification
- Remove all passage barriers

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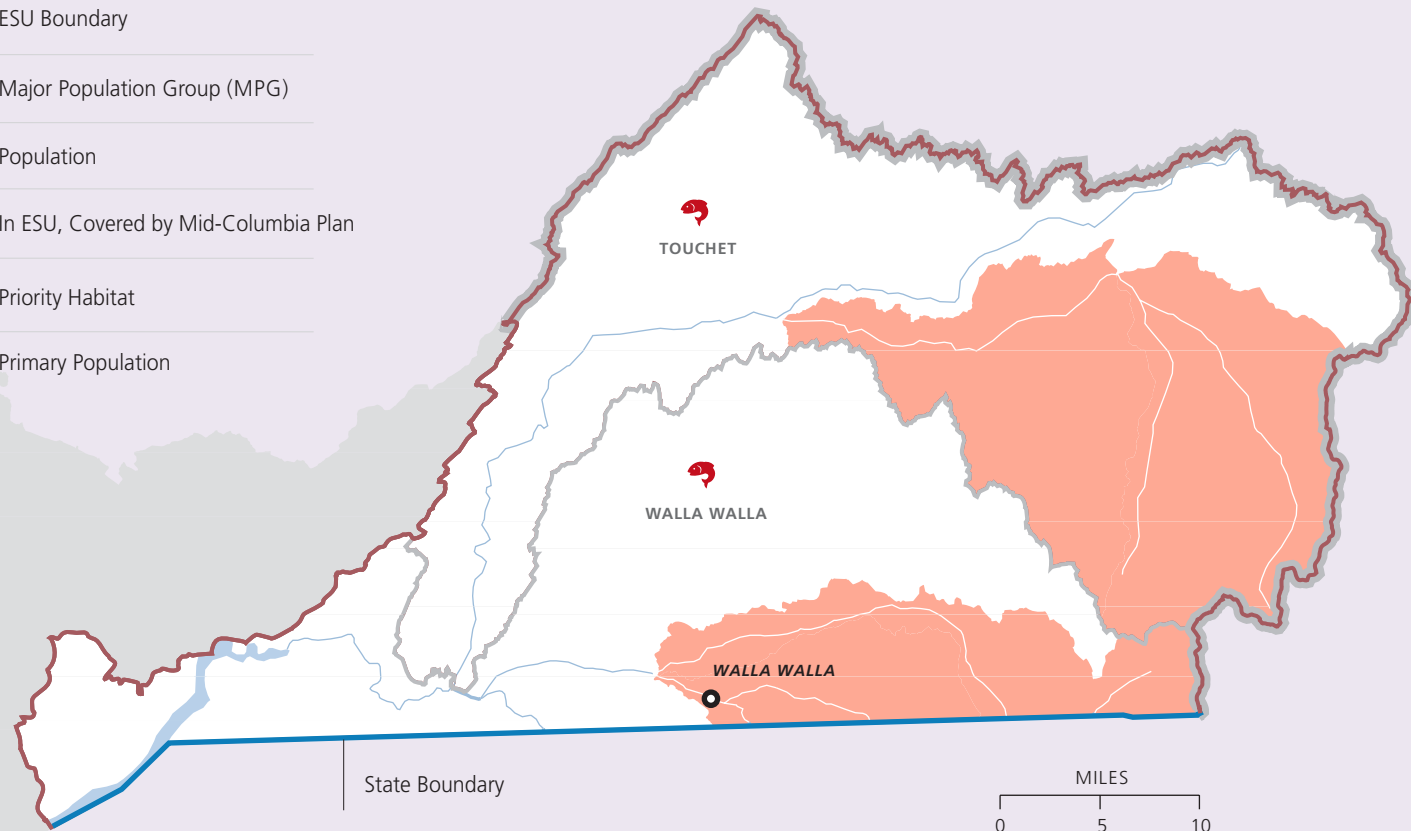


Removal of Kooskooskie Dam on Mill Creek

- ESU Boundary
- Major Population Group (MPG)
- Population
- In ESU, Covered by Mid-Columbia Plan
- Priority Habitat
- Primary Population

In ESU,
Covered by
Mid-Columbia
Plan

In ESU,
Not in Plan;
NMFS Doing
Recovery Plan



Snake River Salmon Recovery Region Chinook



Snake River Region Chinook Evolutionarily Significant Unit (ESU) and Context Area

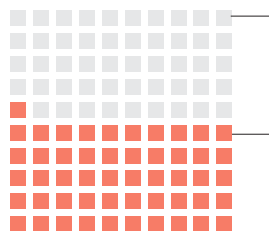
-  ESU in Washington
-  Major Population Group (MPG)
-  ESU in Oregon and Idaho

Chinook Spawner Abundance

Population	Present	Goal ¹
Tucannon River	527	907
Asotin Creek	254	569
Wenaha River	334	337
Total	1,115	1,813

Total Spawner Abundance Goal 1,813 (100%)

This is the number of adults needed on the spawning grounds to achieve recovery. Wherever possible it is expressed in natural spawner numbers.



Total Spawner Abundance Present 1,115 (61.5% of Goal)

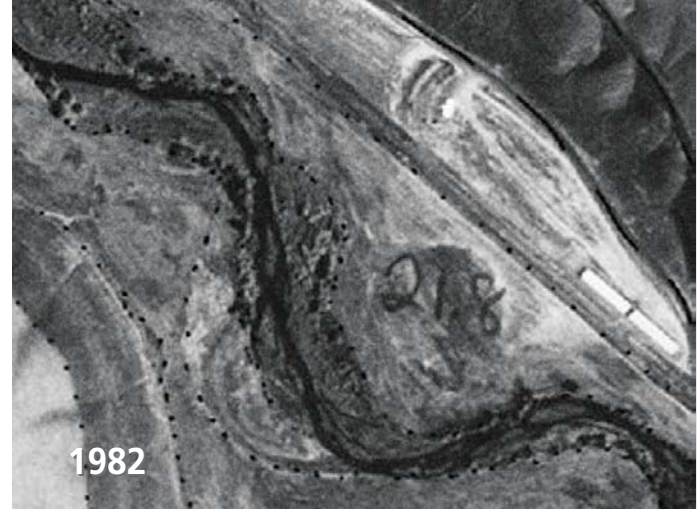
1 BOX = 1%

¹ Goal established by recovery organization as habitat contribution to recovery. These goals are interim (15 years) and long range goals may exceed them.

Chinook Productivity

Population	Present	Goal
Tucannon River	1.26	1.39
Asotin Creek	1.27	1.37
Wenaha River	1.5	1.50

Productivity: Population growth rate. This is how many fish return for each fish that spawns. A population must have productivity greater than 1 to increase over time.



1982



2004

Snake River Salmon Recovery Board

Tucannon River Riparian Habitat Improvement from 1982 to 2004



CHINOOK

Oncorhynchus tshawytscha

Live 3-6 years; life histories vary greatly, but spawn mainly in mainstem rivers; found in mainstem Snake, Tucannon, Grande Ronde, and Wenaha Rivers; spring/summer populations found in Asotin, Joseph and Pataha Creeks

Chinook Snake River Salmon Recovery Region

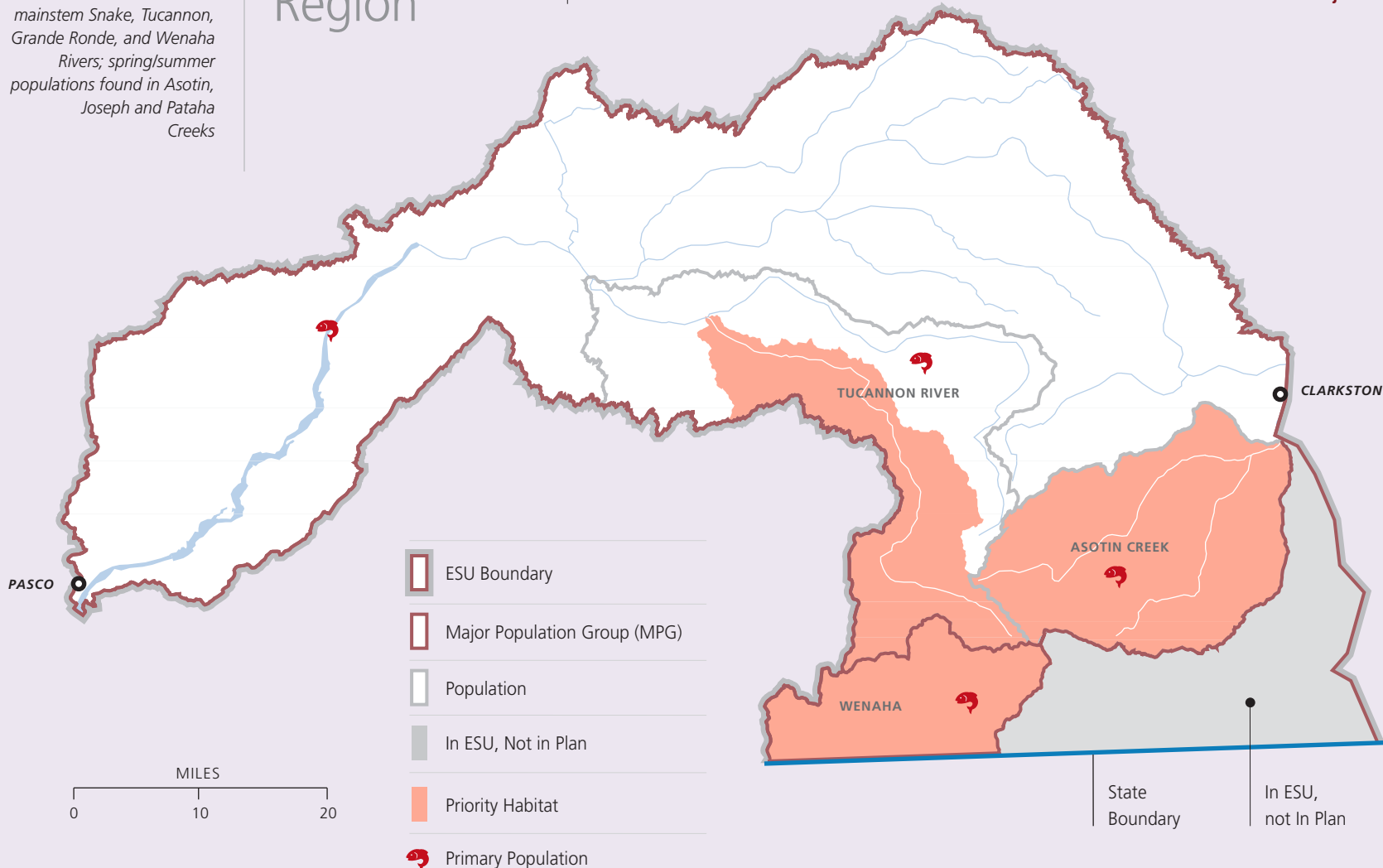
Snake River Chinook MPG Key Actions

- 13 miles Tucannon River channel improvements
- 20,000 acres Tucannon and Asotin watersheds improved for water quality
- 2,000 acres riparian buffer and improvements in Tucannon and Asotin watersheds

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Tucannon-Touchet River Instream Enhancement Project



Snake River Salmon Recovery Region **Steelhead**



Snake River Region Steelhead Evolutionarily Significant Unit (ESU) and Context Area

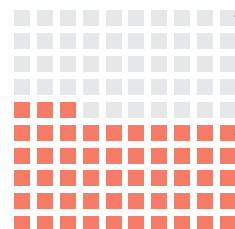
-  ESU in Washington
-  Major Population Group (MPG)
-  ESU in Oregon and Idaho

Steelhead Spawner Abundance

Population		Present	Goal ¹
Tucannon River	900	<div><div></div></div>	1,348
Asotin Creek	435	<div><div></div></div>	712
Grande Ronde	1,516	<div><div></div></div>	1,681
Joseph Creek	558	<div><div></div></div>	1,658
Total	3,409	<div><div></div></div>	5,399

Total Spawner Abundance Goal
5,399 (100%)

This is the number of adults needed on the spawning grounds to achieve recovery. Wherever possible it is expressed in natural spawner numbers.



1 BOX = 1%

Total Spawner Abundance Present
3,409 (63.14% of Goal)

¹ Goal established by recovery organization as habitat contribution to recovery. These goals are interim (15 years) and long range goals may exceed them.

Steelhead Productivity

Population		Present	Goal
Tucannon River	1.27	<div><div></div></div>	1.32
Asotin Creek	1.20	<div><div></div></div>	1.30
Grande Ronde	1.42	<div><div></div></div>	1.43
Joseph Creek	1.08	<div><div></div></div>	1.28

Productivity: Population growth rate. This is how many fish return for each fish that spawns. A population must have productivity greater than 1 to increase over time.



Before



After

Snake River Salmon Recovery Board

Alpowa Creek Dam Removal



STEELHEAD
Oncorhynchus mykiss

Live 4-7+ years;
may spawn more than
once; utilize all parts of a
river basin; found in
Tucannon and Grande
Ronde Rivers, Asotin
Creek, and major
tributaries

Steelhead

Snake River Salmon Recovery Region

Snake River Steelhead MPG Key Actions

- 13 miles Tucannon River and Asotin Creek channel improvements
- 50,000 acres upland BMPs
- 5,500 acres riparian buffers, 14,200 acres riparian areas fenced and improved

- Irrigation efficiency projects on 300 acres
- Lease/purchase 1.3 CFS annually
- 300 AF storage

Snake River Salmon Recovery Board



Curl Lake Fish Barrier

